PROGRAM OF ANNUAL MEETINGS

of

The Maryland Vegetable Growers Association
Baltimore, Maryland.

First Session 10:00 A.M.

Wednesday, January 10, 1934.

Call to Order, - - - - - - - - - - - - - - - - - - - President W. N. Eyler.

Fertilizers Under the Agricultural
Adjustment Act, - - - - - - - - - - - - - - - - - Prof. J. E. Metzger,
College Park, Maryland.

New Insect Pests of Vegetables, - - - - - - - - - Prof. [illegible],
College Park, Maryland.

Codes for Potatoes and Other Crops, - - - - - - - Dr. T. B. Symons,
College Park, Maryland.

Appointment of Committees:

Second Session, 10:00 A.M.

Thursday, January 11, 1934.

What the Consumer Wants, - - - - - - - - - - - - - Mr. S. B. Shaw,
College Park, Maryland.

Recent Experimental Work with Vegetables, - - - Prof. W. A. Matthews,
College Park, Maryland.

Some of the Problems Truckers are Having, - - - Discussion led by:
F. Ridgely Todd,
Sparrows Point, Maryland.

- - - - - - - - - - - - -

COOPERATIVE EXTENSION WORK
IN
AGRICULTURE AND HOME ECONOMICS
STATE OF MARYLAND

UNIVERSITY OF MARYLAND
U. S. DEPARTMENT OF AGRICULTURE
COOPERATING

EXTENSION SERVICE

VEGETABLE GROWERS' NEWS LETTER

Issued by the
Maryland Vegetable Growers' Association
W. R. Ballard, Secretary-Treasurer.

Vol. XI. No. 1. College Park, Md. January, 1934.

The Annual Meetings: The Annual Meetings of the Association were held at the Lord Baltimore Hotel, Baltimore, Maryland, January 10th and 11th. Papers presented and discussions which followed were unusually interesting.

The Treasurer's report showed that all bills were paid and a balance of $13.20 was in the bank.

The officers elected for 1934 are as follows:

President, W. N. Eyler, Flintstone.
Vice-President, A. M. Todd, Sparrows Point.
Secretary-Treasurer, W. R. Ballard, College Park.
Board of Directors:
F. Ridgely Todd, Sparrows Point.
R. T. Merritt, Dundalk.
J. R. Fitzell, Sparrows Point.
Director to Farm Bureau Federation, Joshua Lynch, Hyde.
Representative for Agricultural Corporation, W. G. Lynch, Fork.

By resolution adopted by the Association, the Secretary was directed to write to the family of the late Vice-President, expressing the sympathy of the members in the recent tragic death of S. S. Merritt, Jr. in an automobile accident while returning from a meeting of the American Farm Bureau in Chicago.

The Potato Show: For a while it appeared that the exhibit of certified seed potatoes would have to be discontinued because of lack of funds. However, at a late date a small appropriation was made for the purpose and the Show was held. Twenty-three entries were made and prizes awarded as follows:

Irish Cobbler: First, L. L. Miller Accident; second, Paul Miller, Accident; third, Howard Burtner, Keedysville.

Russet Rural: First, Boyd Hardesty, Hutton; second, Ray Geary, Grantsville.

Smooth Rural: First, Raymond Schlossnagle, Accident; second, Harold Bittinger, Oakland; third, Howard Schlossnagle, Accident.

Any Other Variety: First, John R. Jehle, Hyattsville; second, William Simpson, Clarksville; third, Samuel Hearn, Laurel; fourth, Wm. Cissel, Simpson.

Sweet Potatoes: First, William P. Hotton, Salisbury (Maryland Golden Sweet); second, Egbert H. Hawkins, Harmon (Maryland Golden Sweet); third, John Jehle, Hyattsville (Goldskin).

Of the 17 exhibits of white potatoes, nine were entered by 4-H Club boys. Club boys also entered two of the four exhibits of sweet potatoes.

Of the 16 prizes offered club boys won six places with white potatoes, and one place with sweet potatoes.

Disease Resistant Beans: The Secretary is in receipt of samples of five strains of Canadian or Tweed Wonder beans from the Plant Breeder Experiment Farm, Bathurst, New South Wales. One strain is reported to resist Fusarium in the field, one resists anthracnose, and two resist both anthracnose and Fusarium. These samples have been placed in the hands of Thomas H. White, at the Experiment Station for testing and for multiplication.

This is the leading commercial variety in Australia.

Hot Beds: Electrical units for hotbeds are becoming popular, due, no doubt, to the growing scarcity of manure and to the automatic control. The leading electric supply houses will supply suitable equipment. Growers who desire information on the subject should write George W. Kable, in charge of the Rural Electric Project, University of Maryland, College Park, Maryland.

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Maryland Vegetable Growers' Association
W. R. Ballard, Secretary-Treasurer.

Vol. XI. No. 2. College Park, Md. February, 1934

Bean Culture.

Soils. Fertile loams are preferable - heavy clays and sandy soils are less desirable. Should be capable of producing good corn and wheat.

Fertilizer. From 400 pounds to 800 pounds of 5-8-5 mixture per acre has given good results.

Lime. Soil should be neutral or slightly alkaline. Correct acidity by applying lime.

Cultivation. Frequent shallow cultivation should be the rule. Do not cultivate when vines are damp, or wet, as this may spread disease.

Time of Planting. Wait until soil warms up in the spring. Early plantings generally the best. Succession plantings are desirable for market.

Method of Planting. Plant in drills. Rows vary from 24 inches to 36 inches apart. Thirty inches is a good average width.

Varieties. Tests in Maryland indicate that varieties may yield relatively as follows: Full Measure, New Stringless, Burpee Stringless, Konserva, Green Refugee.

Amount of Seed. Quantity of seed required per acre will vary with the variety. One bushel of Giant Stringless and one-half bushel Refugee would be required.

Diseases. Anthracnose is the worst disease in Maryland. Get disease free seed from arid regions of the west.

Rotation will help to keep down some diseases. Do not work or handle plants when wet.

Insects. Mexican bean beetle is the worst insect pest. Begin control measures as soon as they appear. Dust with calcium or magnesium arsenate lime dusts or spray with calcium arsenate bordeaux spray. Pyrethrum sprays are preferable after bean pods are half grown.

1933 List of Certified White and Sweet Potato Growers in Maryland

Allegany County R. F. McHenry, Co. Agt., Cumberland	Variety	Acreage
Julian Ayers, Barton	Green Mountain	1
J. A. Morgan, Frostburg	Cobbler	2
Garrett County **J. H. Carter, Co. Agt., Oakland**		
S. Homer Beachy, Accident	Rural Russet	1
Harold Bittinger, Oakland	Smooth Rural	1
Orval Bittinger, Mt. Lake Park	Smooth Rural	1
Robert Brenneman, Bittinger	Rural Russet	½
Melvin Butler, Grantsville	Rural Russet	3
William F. DeBerry, Oakland	Rural Russet	1
Laurence Enlow, Hoyes	Rural Russet	¼
Carl H. Everly, Accident	Rural Russet	1
Edward H. Fitzwater, Swanton	Rural Russet	1
Roy Fratz, Accident	Rural Russet	¼
Ernest Friend, Oakland	Rural Russet	3/4
Paul Friend, Oakland	Smooth Rural	1
William Friend, Oakland	Cobbler	½
	Bliss Triumph	1/8
	Russet Rural	1/8
	Smooth Rural	3¼
	Green Mountain	1/8
	Up-To-Date	1/8
	Katahdin	1/8
Ray Gearg, Grantsville	Rural Russet	1
Elmer Goehringer, Accident	Rural Russet	2
Boyd Hardesty, Hutton	Rural Russet	2½
Wayne B. Hamilton, Oakland	Rural Russet	1/8
Willard Hauser, Oakland	Rural Russet	1½
Fred Kamp, Accident	Smooth Rural	1-1/8
Jonas Kamp, Accident	Rural Russet	1
Lloyd Kamp, Grantsville	Smooth Rural	4½
Allen Kelly, Oakland	Rural Russet	1
John Lear, Oakland	Rural Russet	¼
H. P. Miller, Grantsville	Smooth Rural	18½
	Rural Russet	4
Bryden Moon, Oakland	Rural Russet	3/4
Hobert McRobie, Deer Park	Rural Russet	¼
H. L. Porter, Oakland	Green Mountain	½
	Rural Russet	½
	Katahdin	½
	Rural New Yorker	2
H. L. Porter, Jr., Oakland	Rural Russet	1
Albert Richter, Accident	Rural Russet	1
A. J. Richter, Accident	Rural Russet	4
Harvey Riley, Oakland	Rural Russet	¼
William Wildesen, Gormania, W. Va.	Rural Russet	3
Isaac Wildesen, Gormania, W. Va.	Smooth Rural	1/3

	Variety	Acreage
Clark Schlosnagle, Accident	Smooth Rural	1
Howard Schlosnagle, Accident	Smooth Rural	3
Raymond Schlosnagle, Accident	Smooth Rural	1
Elmer D. Schrock, Grantsville, R. #417	Smooth Rural	8
Abe Speicher, Accident	Rural Russet	2
H. M. Speicher, Accident	Rural Russet	1
John Speicher, Accident	Rural Russet	2
Laurence Wensel, Oakland	Rural Russet	1
Herbert Wildesen, Germania, W. Va.	Rural Russet	1
G. W. Weitzel, Accident	Rural Russet	1
Foster Yost, Accident	Smooth Rural	1-3/4
Howard County		
J. W. Magruder, Co. Agt., Ellicott City		
Samuel Hearn, Laurel	Jersey Redskin	5
William Simpson, Clarksville	Jersey Redskin	3
William Cissel Simpson, Jr., Clarksville	Jersey Redskin	6
Prince George's County		
P. E. Clark, Asst. Co. Agt., Upper Marlboro		
Hobson Cady, Anacostia, R. 4	McCormick	1/8
John R. Jehle, Hyattsville	McCormick	1/8
	Jersey Redskin	1/8
James Jennings, Beltsville	Jersey Redskin	1/8
Daniel Scollick, Anacostia, R. 4	Jersey Redskin	1/8
Robert Underwood, Anacostia, R. 4	McCormick	1/8
Queen Anne's County		
K. W. Baker, Co. Agt., Centerville		
Oregon Leary, Grasonville	Jersey Redskin	1/4
	McCormick	1/8
	Cobbler	1/4
	Katahdin	1/4
Somerset County		
C. Z. Keller, Co. Agt., Princess Anne		
Francis Cluff, Westover	Cobbler	5 1/2
Robert Cluff, Westover	"	3
W.E. Dryden, Pocomoke	"	3
Edwin Hayman, Princess Anne	"	1
W. T. Holland, Princess Anne	"	3
Arthur Lankford, Pocomoke	"	5
A. P. Long, Pocomoke	"	7
Walter Long, Pocomoke	"	2
Charles W. Matthews, Pocomoke	"	5
E. P. Matthews, Pocomoke	"	4
J. W. Tilghman, Pocomoke	"	2
Anne Arundel County		
Stanley [illegible]. Day, Co. Agt. Annapolis	**Jersey Redskin**	**10**

	Variety	Acreage
Wicomico County		
J. P. Brown, County Agent, Salisbury		
W. B. Tilghman Company, Salisbury	Cobbler	4
Worcester County		
R. T. Grant, County Agent, Snow Hill		
R. W. Adkins, Snow Hill	Cobbler	4
John Aydelotte, Snow Hill	"	5
Maurice Aydelotte, Pocomoke	"	4
Otho Aydelotte, Girdletree	"	8
M. E. Baylis, Stockton	"	4
Merrill Beauchamp, Berlin	"	1
W. T. Belote, Pocomoke	"	1
George Brown, Stockton	"	1¼
Otho J. Brown, Stockton	"	1
W. T. Bunting, Pocomoke	"	3
C. S. Chesser, Pocomoke	"	10
William Clayville, Snow Hill, R.2	"	2
S. D. Corbin, Pocomoke	"	4
M. B. Disharoon, Snow Hill	"	15
C. C. Ewell, St. Martin's	"	4½
Leonard Hancock, Snow Hill	"	6
Burl Jones, Girdletree	"	2
C. P. Jones, Stockton	"	1½
Leslie Jones, Pocomoke	"	3
DeWitt B. Merrill, Pocomoke, R.2	"	1
George Moore, Snow Hill	"	1
Paul M. Jones, Snow Hill	"	2½
	" (P.E.I.)	3
	" (N.D.)	4
Milton Payne, Pocomoke, R.2	"	1
W. J. Payne, Stockton	"	4
Mrs. Alonza Pilchard, Pocomoke	"	1½
A. F. Pilchard, Pocomoke	"	1
C. C. Pilchard, Stockton	"	4
C. W. Pilchard, Pocomoke	"	3
W. T. Pilchard, Pocomoke	"	2
C. V. Redden, Pocomoke	"	4
Milton Redden, Pocomoke	"	2
W. H. Redden, Girdletree	"	3
John Shockley, Snow Hill	"	3
Lester Shockley, Snow Hill	"	4
Ralph Shockley, Snow Hill	"	6
Sam Shockley, Snow Hill	"	8
Neal Taylor, Pocomoke	"	3
Clyde Townsend, Pocomoke	"	1½
Handy Truitt, Snow Hill	"	3
Preston West, Snow Hill	"	3

Sweet Potatoes

Anne Arundel County		
S. E. Day, Co. Agt., Annapolis		
Rufus Day, Severn	Md. Golden Sweet	1½
Egbert Hawkins, Hanover, R.F.D.	Md. Golden Sweet	2

	Variety	Acreage
Prince George's County		
P. E. Clark, Asst. Co. Agt., Upper Marlboro		
Hobson Cady, Anacostia, R. 2	Goldskin	1/8
	Bigstem	1/8
John R. Jehle, Hyattsville	Md. Golden Sweet	1/8
	Nancy Hall	1/8
	Goldskin	1/8
James Jennings, Beltsville	Haymen	1/8
	Goldskin	1/8
	Md. Golden Sweet	1/8
Brooke Kerby, Anacostia, R. 2	Nancy Hall	6
Daniel Scollick, Anacostia, R. 4	Haymen	1/8
	Bigstem	1/8
Robert Underwood, Anacostia, R. 4	Haymen	1/8
	Goldskin	1/8
	Nancy Hall	1/8
Wicomico County		
J. P. Brown, Co. Agt., Salisbury		
H. H. Hambury, Wetipkin	Bigstem	1
William P. Hotton, Salisbury	Md. Golden Sweet	3
Grover Tilghman, Fruitland	Md. Golden Sweet	1
Willard Toadvine, Fruitland	Md. Golden Sweet	1½
E. W. Townsend & Sons, Salisbury	Md. Golden Sweet	7

Prize Winners in the Fourth Annual Garrett County Potato Show

4-H Certified Seed Class
Smooth Rurals

1st - Wade Frazee, Oakland
2nd - Clark Schlosnagle, Accident
3rd - George Porter, Oakland
4th - Raymond Schlosnagle, Accident

Certified Seed Class
Russet Rurals

1st - Boyd Hardesty, Hutton
2nd - Allen Kelley, Oakland
3rd - Jonas Kamp, Accident

Certified Seed Class
Any Variety

1st - H. L. Porter, Oakland (Katahdin)

4-H Certified Seed Class
Russet Rurals

1st - Willard Hauser, Oakland
2nd - Wade Frazee, Oakland
3rd - Frederick Kamp, Accident
4th - Ray Geary, Grantsville
5th - H. Porter, Jr., Oakland
6th - George Porter, Oakland
7th - Carl Fratz, Accident

Certified Seed Class
Smooth Rurals

1st - Harold Bittinger, Oakland
2nd - H. Porter, Oakland
3rd - H. Schlosnagle, Oakland
4th - W. S. Friend, Oakland
5th - H. P. Miller, Grantsville
6th - G. Miller, Accident

Prize Winners in State Potato Show, Baltimore
January 10, 11

Prize Winners in State Potato Show, Baltimore, Md.
January 10 & 11, 1934

White Potatoes (Certified Seed)
Smooth Rurals

1st - Raymond Schlosnagle, Accident
2nd - Harold Bittinger, Oakland
3rd - Howard Schlosnagle, Accident

Russet Rural

1st. Boyd Hardesty, Hutton
2nd. Ray Gearg, Grantsville

Any Other Variety

1st.- John R. Jehle, Hyattsville (McCormick)
2nd - William Simpson, Clarksville (Jersey Redskin)
3rd - Samuel Hearn, Laurel (Jersey Redskin)
4th - William Simpson, Jr., Clarksville, (Jersey Redskin)

Sweet Potatoes

1st - William P. Hutton, Salisbury (Md. Golden Sweet)
2nd - Egbert Hawkins, Harmon (Md. Golden Sweet)
3rd - John R. Jehle, Hyattsville (Goldskin)

Advice to Prospective Purchasers of Certified Seed

1. Write to county agent for list of growers who have seed for sale.

2. Insist that seed you purchase is tagged and sealed by the Maryland Seed Certification Board, otherwise, you are not getting certified seed since the bin inspection has not been made.

3. Do not expect to control all potato diseases and insects with the use of certified seed. Spray your fields four to five times with Bordeaux-calcium arsenate, and rotate with other crops.

4. Records of field inspections can be obtained from the county agent of the county in which the grower is located or from the Maryland Seed Certification Board, University of Maryland, College Park, Maryland.

5. For further information on disease and insect control write for bulletins #57 and #58 and circular #75.

MLO
1/19/34

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VEGETABLE GROWERS' NEWS LETTER

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Maryland Vegetable Growers' Association
W. R. Ballard, Secretary-Treasurer.

Vol. XI. No. 3. College Park, Maryland. March, 1934.

Economy Measures. Because of drastic cuts in the budget of the Agricultural Society it will not be possible to furnish the members with a printed copy of the papers presented at the annual meeting in Baltimore last January. The Secretary however will endeavor to include in the News Letter the most important points brought out in these papers.

In addition to the general discussion of control of insects and diseases, marketing and market agreements, the principal subjects present were the relation of the vegetable grower to the code for fertilizer dealers, important new insects affecting truck crops, what consumers want (roadside stands) and the results of experimental work. More detailed reports on these subjects will be given from time to time.

Soil Disinfectants. Trade Journals contain advertisements of a number of substances to be used for controlling the various damping-off funguses which cause so much damage to plants in the seedling stage. The difficulty with many of these treatments is that unless they are handled carefully they may affect injuriously germination of the seed or injure the seedlings after they come up.

One of the most promising, Trioxo, has the endorsement of the workers at the Massachusetts Agricultural College. The advantages claimed for this material is that it is effective in controlling damping-off and at the same time does not inuure the plants.

Tools That Cut Cost of Production. Whatever one may think about machinery throwing men out of employment, it does not seem likely that we will soon go back to the period when everything was done by hand. It still seems the part of wisdom to produce vegetables as economically as possible and this will often mean using the very latest improvements in machinery adapted to the operation.

How many growers are keeping up with the latest wrinkle in tools and implements? What about the machine which will thin out the row to any designated distance between plants? A seeder is now adapted for varying the depth seed is planted so as to insure a stand despite vagaries of the weather. There are rotary weeders and all sorts of schemes to keep the soil worked up.

Local dealers are often slow to take up new things so that it is up to the wide-awake grower to look out for himself. Not all the new things are practical or worthwhile, but to skim off the cream of the new things may mean money in the growers pocket.

This is where a good trade journal comes in. Often the advertisements are worth as much as the articles but both are of interest.

Seed Potatoes Frozen? It is warned by Dr. R. A. Jehle, Plant Pathologist for the University of Maryland Extension Service, that extreme care should be taken this spring in the selection of seed potatoes for planting as the severe cold of the last two months has caused considerable damage in many sections. He points out that while many potatoes came through the freezing temperatures uninjured, injury does not always show on the outside, and for this reason tubers to be used for seed purposes should be well inspected before planting.

Dr. Jehle emphasizes that all potatoes which show any outward appearance of frost injury should be discarded at once since they will contaminate all good tubers with which they come in contact. The remaining potatoes may be either examined for internal injury at once or stored until time for planting. If stored until time for planting, it is pointed out, all tubers should be examined by having a thin, transverse slice cut from them. All potatoes showing discoloration of any kind or which have a cheesy consistency or sour odor should not be used, it is said.

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VEGETABLE GROWERS NEWS LETTER

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Maryland Vegetable Growers' Association
W. R. Ballard, Secretary-Treasurer.

Vol. XI. No. 4. College Park, Maryland. April, 1934

Tomato Seed Certification. Revised regulations governing the certification of tomato seed has just been issued by the Maryland Seed Certification Board. The object of the seed certification is to produce tomato seed free from varietal mixtures, true to type, and reasonably free from diseases; and to promote the use of high grade tomato seed as a means of production of higher yields per acre and better quality raw stock.

Fields and seed improvement plots will be inspected and Federal licensed inspectors are to be maintained at the point of seed saving during the seed saving period.

If after drying and cleaning, the seed is eligible for certification, it shall be placed in a container or containers, subject to the approval of the inspector, and sealed in his presence with the official seal and tag of the Maryland Seed Certification Board.

Persons desiring to secure further details should address their inquiries to the Maryland Seed Certification Board, College Park, Maryland.

Treating Sweet Potato Seed. Control of diseases such as black rot, stem rot, and scurf may be done according to Dr. R. A. Jehle, by inspection of the seed, treatment, and sanitation of the seed bed.

To treat, dissolve four ounces corrosive sublimate powder in one gallon of hot water, then add enough water to make thirty gallons of solution. After ten bushels of seed have been treated, add one-half ounce more of corrosive sublimate, and after thirty bushels have been treated discard the solution. The discarded solution, or one of formaldehyde (one pint to thirty gallons of water) may be used to treat a part of the seed bed. The corrosive sublimate is a deadly poison, and should not be left around carelessly.

The seed bed should have all the soil in which potatoes have previously been bedded replaced with clean sand or soil in which sweet potatoes have not grown for at least three years.

Collar Rot in Tomatoes. This is a destructive disease in Maryland and may not show up until after plants are set into the field, according to Mr. H.A. Hunter, Canning Crops Specialist for the Maryland Extension Service.

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Collar rot is caused by several fungi or molds but the most important one is the same as that causing early blight of tomatoes and potatoes. The disease lives over on the seed, tomato, and potato plants, and on a large number of weeds. The disease may either kill the plant or stunt its growth.

Seed may be treated for twenty minutes with a solution of copper sulphate or bluestone, one ounce to two quarts of water. Treatment of seed for five minutes with mercuric chloride, 1-3000, or organic dusts are also satisfactory. Rinse seed thoroughly after treatment with mercuric chloride.

Harden off plants before transplanting and do not pull them when wet, nor injure them in handling.

The New Canteloupe Law. Growers generally on the Eastern Shore appear to be satisfied with the workings of the new law which prevents the shipment of green melons. In the administration of the law for the first year, inspectors were rather lenient with the growers, taking the occasion to explain carefully the requirements in detail. The probabilities are that enforcement will be gradually tightened up as growers become familiar with the requirements.

Economy Strikes Us. Because of depleted budgets it will be impossible this year to print separates of the papers presented at the annual meeting in Baltimore last January. However, it is planned to give the essential features in these papers in the News Letter during the year, so that the information will be available to all the members. It is hoped that in this way the situation can be bridged over until the return of brighter days.

Business conditions seem to be improving and it is hoped that vegetable growers may get higher returns for their products than has been the case in the recent past.

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W. R. Ballard, Secretary-Treasurer.

Vol. XI. No. 5. College Park, Md. May, 1934.

Sulphur as an Insecticide. In Bulletin No. 44 of the Crop Protection Institute, Washington, D. C., Dwight M. DeLong of the Ohio State University, describes experiments which indicate that applications of finely ground sulphur may have considerable insecticidal value in the control of sucking insects. Mr. DeLong states, "The manner in which these toxic effects are brought about is not known but may be due to production of abnormal quantities of certain chemical substances within the plant cells, as a result of the presence of sulphur on the surface of the leaf.

Sulphur applied to the leaf may bring about death of these insects through the residual action noted above. This residual action may last for two or even three weeks.

Finely ground sulphur (300 mesh) gives excellent results and is easy to apply.

A combination of sulphur and pyrethrum gives greatest protection because the pyrethrum brings about immediate killing of insects present at the time of application, while the sulphur, through residual effects, kills insects hatching or appearing later.

A combination of sulphur and phrethrum at the rate of 95 to 5, or 90 to 10, is efficient.

Sulphur alone will give practical control of various sucking insects, but applications must begin earlier."

Winter Hardiness of Spinach: The recent severe winter has furnished a severe test of hardiness in spinach varieties and strains. The results of tests completed by Walter H. Lappeh, at the University of Maryland, have considerable interest in this direction. Quoting from the report, "A variety of spinach resistant to freezing temperatures was produced at the Virginia Experiment Station by crossing a variety known as Bloomsdale with a Manchurian stock which is the Wild Asiatic Spinach and has undergone a process of natural selection. This natural selectionhas resulted in a strain which is relatively hardy.

The progeny of this cross was named Virginia Savoy. Selection for further cold resistance than that already shown by Virginia Savoy was made a few years ago by F. W. Geise. This selection.has been tested previously by W. A. Frazier, a graduate student of the University of Maryland, in the years

1930-1931. It was tested again in this study along with several other varieties of spinach, namely, Virginia Savoy, King of Denmark, Old Dominion, and Bloomsdale."

Two plantings were made in the fall of 1933 on October 6th, and October 20th respectively. Examination of the plants indicate clearly that the roots and crowns were the weak points in the spinach, these often being severely injured while the leaves were comparatively unharmed.

The Savoy types all showed more resistance to winter injury than other varieties. The lowest temperature recorded was 14°F below zero. Considerable variation was found in the various strains of Savoy, and they are given here in the order of their resistance; Geise's Selection, Old Dominion, and Common Virginia Savoy.

In the October 6th planting the following percentages of winter killing were noted:

Geise's Savoy - - - - - 9.1 per cent.
Old Dominion, - - - - -18.0 per cent.
Common Va. Savoy, - - -25.5 per cent.
King of Denmark, - - -64.6 per cent.
Giant Leaf Nobel, - - -71.0 per cent.
Bloomsdale Savoy, - - -83.0 per cent.

In the later plantings the injury was much more severe, but the results paralleled closely those from the first sowing.

While Geise's selection seemed to be slightly hardier than Old Dominion, the latter is a monoecious type and seems to be slow to send up seed stalks in the spring and is of value for this long standing tendency.

Code Prices. There is indication that containers for fruits and vegetables are to cost the producer more than formerly. This has come to be an important item in the marketing of produce and unless there is a corresponding increase in returns from his crops, the grower will find this an additional burden. However, producers of fruits and vegetables have probably fared better than those in other agricultural fields.

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VEGETABLE GROWERS NEWS LETTER

Issued by
The Maryland Vegetable Growers' Association
W. R. Ballard, Secretary-Treasurer.

Vol. XI. No. 6. College Park, Maryland. June, 1934.

Potato Field Meetings: The annual potato tours will begin on June 19th starting at Onley, Virginia. Wednesday, June 20th will be Maryland Day and June 21st and 22nd will be devoted to the New Jersey experiments and demonstrations. Detailed programs will be available soon.

Experiments and demonstrations will be explained by officials from the states and the United States Department of Agriculture.

Items of interest will be spraying experiments, tests of Cobblers from the important seed growing districts, tests of new early varieties being developed by the U. S. Department of Agriculture, lime and fertilizer tests with white potatoes (also with lima beans in Virginia), sweet potato plant treatments and fertilizer tests, strawberry variety tests (Virginia), bean beetle control experiments (Virginia) and potato twin row methods (Virginia).

Potato machinery will be exhibited and demonstrated.

Special items in the Maryland tour will be the studies of the new Katahdin potato from different sources and the tuber index plots in the study of seed maintenance with various varieties.

Anyone interested in growing potatoes will find these tours highly interesting and instructive.

The Horticultural Farm: This opportunity is being taken to point out that the University of Maryland's Horticultural Farm of 150 acres is located just three miles north of the campus on the east side of the Washington Boulevard. Members of this association, and any other vegetable growers are welcome to stop in to look over the 15 acres devoted to vegetable crops.

Just across the Boulevard is the U. S. Government Farm where the horticultural projects are rapidly being transferred from the Arlington Farm, which is soon to be taken over by other governmental agencies. This area thus bids fair to become a very important center of horticultural activities.

Some of the lines of work in progress at the Maryland Station are: (1) breeding and development of new types of tomatoes, (2) tests of market garden varieties of sweet corn, (3) development of better market types of melons and a study of market preferences, (4) breeding and selection of potatoes for late

planting (5) test of yield and canning qualities of important varieties of tomatoes, (6) yield tests of six varieties of canning peas, (7) test of yields and canning qualities of string beans, (8) test of lima bean varieties, (9) tests of the effect of different fertilizing elements on the canning quality of sweet corns, (10) tests of effect of fertilizers on the color and cracking of skin of tomatoes, (11) test of best top-cross and standard varietities of sweet corns, (12) cooperative potato breeding for the development of resistance or immunity of potatoes to spindle tuber and leaf roll, includes innoculation tests and rechecking, (13) rhubarb experiments, (14) green manure studies, (15) rotation experiments testing effect of green manures and fertilizers in rotations of sweet corn, tomatoes, potatoes, and cabbage, (16) yields and quality of string beans as affected by high and low soil fertility, refugee, valentine, and stringless green-pod types being used.

Market Garden Peas: It has long been known that the climate of Garrett County is well adapted to the growing of peas for market purposes. Last year some preliminary demonstrations were started by the Extension Service and they are being continued this year. It is believed that such peas could be grown continuously through the short summer season and find a ready market in nearby towns.

It will take a little time to determine the best varieties and the best way to handle them. Competition on the market will come mainly from Colorado and New York and it would seem that the shorter haul would be distinctly favorable to Maryland growers. It may turn out that the best method of growing peas will be to choose a dwarf type and plant in succession as long as they can be matured before frost.

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W. R. Ballard, Secretary-Treasurer.

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The Potato Tour: A few of the significant points of interest connected with the potato tour are here noted.

While a number of different fertilizer treatments are being tested, so far results have not been significantly better than the standard 6-6-5 with the nitrogen derived from fish (300 lbs), nitrate of soda (160 lbs), and sulfate of ammonia (360 lbs) with a total application of 2000 lbs. per acre.

With sweet potatoes 1200 lbs of a 3-8-15 gave the best yields in 1933.

The highest yielding sources of Irish Cobbler seed potatoes are those most free from virus and other seed borne diseases. Large yields can be obtained from northern, mountain grown, and home grown second crop seed if it is practically free from virus and other seed borne diseases, and has been kept under proper storage conditions.

Northern and mountain grown seed comes up earlier, matures sooner and yields heavier than the home grown, second crop seed.

Studies were begun to determine the reason for the lower yields secured from the second crop seed and the plots at this stage indicate that the problem has been solved. Lots of seed were brought into a warm room on January 15th and February 14th, and these were planted to compare with seed handled in the ordinary way.

The January lot came up with those from northern sources and at the time of the tour appeared to be identical in growth and maturity. The February lot is just a little later but earlier than that handled in the orthodox manner. If the yields at digging time bear out this conclusion, this handicap of the home grown second crop seed will be in a fair way to be removed.

In a two year test Katahdin has outyielded Irish Cobbler, the quality is superior, and it has brought a premium on the market. Growers are advised to test it out in a small way for both early and late plantings if seed can be secured.

Pomace Fly or Vinegar Gnat: In late July some tomatoes canned in Maryland during the season of 1932 were found to contain a few larvae of the common vinegar or pomace gnat, an insect that is normally present wherever fermenting vegetable material is present. Investigations were begun in early August on this pest and it was found that eggs and larvae were present in cracked fruit in the fields and consequently when these tomatoes were taken to the factory, the infestation developed in proportion to the length of time that the tomatoes were held in the packers yard. Quantities of the gnats are usually present at the factories also, but since three to four days is required for the hatching of the egg and since tomatoes are seldom held over three days, infestation from that source is unlikely.

Efforts to control this pest centered in the past season about methods to eliminate the maggots from the fruit before it went into the cans by a careful system of culling, washing, followed by further culling before scalding and washing immediately after scalding. In spite of these precautions, where the infestation was heavy some larvae gained access to the packed goods. It was felt, however, that by buying tomatoes on Federal-State grades, coupled with the culling and washing at the factory, practically all of the maggots can be eliminated from the canned product. Investigations of other methods in the field and factory will be pursued during the coming season.

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VEGETABLE GROWERS NEWS LETTER

Issued by
The Maryland Vegetable Growers' Association,
W. R. Ballard, Secretary-Treasurer.

Vol. XI. No. 8. College Park, Maryland. August, 1934.

Fertilizers Under the A.A.A: (Extracts from Address of J. E. Metzger at Annual Meeting in Baltimore, January 10, 1934).

"There are several very definite provisions under the Federal Code of competition for the fertilizer industry.

"In the first place, the entire country is divided into regions and zones. Within each region certain trade practices and wage requirements will be enforced. Each region may be divided into several zones for the purpose of administration of the act and also for the purpose of securing uniformity in the number of fertilizer analyses that would logically be included in the trade. Maryland is in the northern region and in Zone 3. In addition to Maryland, Zone 3 includes Delaware, the District of Columbia, Virginia north of the James River, and that portion of West Virginia known as the B. & O. Section.

"Secondly, every effort will be made in each region to maintain as low a number of fertilizer analyses as is practical for the crops grown in the area.

"In the zone in which we are located there has been adopted temporarily twenty analyses for use during the coming spring trade. These analyses will be given a trial and doubtless many of them will be made permanent after July of this year. Some substitutions may be made in this program at that time. The complete list is as follows:

2-9-5*	0-12-5*	4-8-12*	0-20-0	2-12-4*
0-16-0*	1-10-5	2-12-6	4-12-4**	4-8-10
6-6-5*	4-8-7*	3-12-6*	0-10-10	5-8-7
4-8-5*	2-8-10*	5-10-5**	4-16-4	3-8-10*

"With the exception of the 2-9-5, those marked with a single star have been in the Maryland recommended list for a number of years. The 4-8-12 is a special tobacco fertilizer. Two other analyses that have been used to a considerable extent on lawns and pastures are the 5-10-5 and the 4-12-4. Most of the other analyses appearing in the list of twenty are manufactured in this zone, but generally sold outside of the State.

"Third, it will not be lawful to sell any fertilizers that are not included in the prescribed list except under special provisions in the Act.

"Any individual desiring a fertilizer analysis other than that found in the prescribed list will be able to secure it if he is willing to pay all of the costs connected with producing it. This means that the consumer may find it necessary to pay the registration fee and also the cost for special printing of bags and labels. In fact, it will not be lawful for any firm to charge less than the full cost.

"Fourth, it will be necessary under the Code to eliminate all low analysis fertilizers in order to remove some very undesirable features of trade competition. It is not probable that any fertilizers having less than 16 units of plant food will be included in the final list. "

A City Man Succeeds: A business man bought a small farm in Baltimore County and last year put out thirty acres of potatoes. He used certified Cobblers from the Eastern Shore and had such a good crop that he was able to pay for his tractor, plows, cultivators, harrows, potato planter and digger and spray apparatus and had $2,500 left.

This year potato seed was almost double in price over the previous year and acting on advice of Extension Service, he put the area into tomatoes, on the contract basis. He has made his first pickings and has the prospect of a profitable yield.

On another section he has planted two acres of Mary Washington asparagus. He broadcast sixty tons of cow manure over the two acres and put another sixty tons in the row. As can readily be imagined, the asparagus has made an excellent growth. So far no beetles have appeared, although he is prepared to spray if they put in an appearance. He has good prospect of producing a high grade quality of asparagus.

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VEGETABLE GROWERS NEWS LETTER

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The Maryland Vegetable Growers Association
W. R. Ballard, Secretary-Treasurer.

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Fertilizers Under the A.A.A. (Condensed from Address of Dr. J. E. Metzger before the Annual Meeting).

In the past, fertilizer agents were compensated for their work on the basis of the tons of fertilizers sold. It was to their interest to sell as many tons at a low price as possible. Under the code, agents must be paid a salary. There will be no inducement whatever for an agent to try to sell a low grade fertilizer. Neither will it be possible for him to engage in any trade practices that will make deceptive allowances in regard to warehousing and shipping, a practice that has been very annoying to the honest fertilizer dealer in the past.

In the first place, there does not seem to be anything in the new code that should react unfavorably on those who buy the fertilizer, unless a somewhat higher scale of price should be considered in that light. It will be necessary for the fertilizer manufacturers to pay higher wages than during the last few years. The replacement of equipment will be more expensive for them than in the past. Just how much of this can be absorbed in factory economies and the elimination of non-profitable but expensive trade practices, I have no way of knowing. I doubt very much whether it will be necessary to pass to the consumer all of the increase in labor cost. As I see it the new arrangement under the code is deserving of our support. If any feature of it seems to be unfair to those of us who buy fertilizers, we will have the opportunity to lay complaints before the proper persons.

It would seem that the market gardeners as well as the grain farmers should go over the list of analyses that will be offered by the trade. They should select from this one or two analyses that seem best to meet their needs. This fertilizer should be purchased as a stock material. If for some special reason more nitrogen or more potash seems to be needed, then this should be supplied as a special side dressing to the crop or should be mixed with the stock material which has already been purchased.

We have made literally thousands of determinations on the lime, phosphorus and potash requirement of Maryland soils during the last few years. Almost invariably we find these soils low in phosphorus. Grain farmers, particularly the farmers who grow such legumes as alfalfa, should pay especial attention to both the lime and phosphorus needs of their soil.

Dairymen in the past have purchased large quantities of concentrated feed materials. Most of these concentrated feeds are rather high in nitrogen and potash. During the last two or three years the dairymen have made a very commendable effort to grow as much of their feed requirements at home as possible. A reduction in the use of concentrated feeds has likewise resulted in a manure on the farm that is somewhat lower in nitrogen and potash than was the case a few years ago. On dairy farms where the crop area is not too large and where the manure supply is abundant (perhaps 8 to 10 tons per acre for the corn land) the fertilizer may be low in nitrogen or may be even without nitrogen. I think this group of farmers could well select a 2-12-4 or an 0-12-5 fertilizer. I mention this particularly in this meeting because many truck farms approach the dairy farms insofar as supplies of manure are concerned. Either of these fertilizers could also be used as "stock material," to which might be added nitrate, sulphate and potash in order to provide for the special needs of any crop.

To farmers who have been using low grade goods and who justly feel that their farming operations will not warrant the extra cost of high grade fertilizers, there is one very positive advice which may logically be given them. For example, there is no difference in the relation between nitrogen, phosphorus and potash in a 2-8-5 or a 4-16-10. In fact, 200 pounds of 4-16-10 would give the same results as 400 pounds of the 2-8-5. Their problem, therefore, is to select a fertilizer and then determine how much is needed in order to secure the same amount of plant food per acre that they had with another fertilizer which may no longer be available on the market. What the situation will be in the future regarding the relative price cannot be foretold. In the past, however, the high grade fertilizers have always been cheaper per unit of plant food than the low grade fertilizer.

It seems to me that there has never been a time when truckers and others should make a closer study of the results secured by the research organizations which are available to them. For a given list of crops there is available to each and every one a great fund of information concerning the fertilizer requirements. In adjusting the production program to the new fertilizer manufacturing control program, these results should be fully consulted and the selection of analyses should be made on the basis of type of farming that is practiced, together with the requirements of all of the crops grown in the farming system.

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VEGETABLE GROWERS NEWS LETTER

Issued by
The Maryland Vegetable Growers Association
W. R. Ballard, Secretary-Treasurer.

Vol. XI, No. 10 College Park, Maryland. October, 1934.

Test of Sweet Corn and Beans: Mr. Thomas H. White of the Maryland Experiment Station reports that he has made a test of the Honey June sweet corn originating in Texas. It is supposed to be resistant to the ear worm due to the tightness of the husks. It does appear to be somewhat less subject to this pest, but being a cross between field corn and sweet corn, its appearance is too much like field corn to be attractive on the market. The corn, however, is sweet and of good quality.

Mr. White also reports on the five samples of Canadian or Tweed Wonder beans received from the Plant Breeder Experiment Farm, Bathurst, New South Wales. The beans germinated and grew well but failed to set pods while Giant Stringpod and Tennessee Greenpod alongside set a normal crop.

The five strains persisted, however, and late in the season with abnormal rainfall did set a few pods. It does not appear that they are adapted to conditions in this section.

How to Make Cauliflower Head: The most successful way to get cauliflower to head in the warmer sections is to change the climate! Cool weather this year the last of August and the first of September seemed to check vegetative growth and started the formation of "buttons" which are now developing into marketable heads. The close correlation between periods of cool in late summer weather and the formation of heads in the cauliflower has been noted before by the Experiment Station workers. No artificial treatments have proved very effective.

Fall Cut Asparagus: Many growers have no doubt noted that asparagus continues to throw up new shoots long after the spring cutting season. Recently a few enterprising growers have capitalized on this growth habit by setting apart a certain section of their fields and have allowed this to make full growth in the spring so that marketable shoots could be cut in the fall without making too serious a drain on the vitality of the plant. Prices have ruled sufficiently high to make this more profitable than the spring cutting. Of course weather conditions control to some extent the growth in the fall but liberal feeding is necessary no matter how this crop is handled.

Circumventing the Bean Beetle: Growers producing snap beans for market or for canning are learning that they have less trouble with the beetle if they avoid planting until fairly late in the season. By missing the early spring crops, the beetles apparently do not have such a good opportunity for accumulating the large numbers which make them difficult to control by spraying.

How do You Like Your Potatoes Cooked? Miss McPheeters, Nutrition Specialist of the Extension Service, is making a cooking test of the commercial varieties of potatoes grown in the State. They will be subjected to the various ways of preparing this vegetable for the table such as baking, boiling, potato chips, creamed, etc. The results should be of considerable interest. It will no doubt be found that certain varieties will be found to be better adapted to some uses than others. Since the McCormick potato passed out largely because of virus diseases, inquiries have been received from large producers of potato chips, looking for a source of supply for this variety because of its adaptability to use as chips. Its quality was never considered very high for ordinary culinary uses.

Topics for the Annual Meetings: It will soon be time for the annual meetings of the Association and if members have in mind certain subjects which they would like to have discussed, it is important to bring these matters to the attention of the Secretary.

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VEGETABLE GROWERS NEWS LETTER.

Issued by
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W. R. Ballard, Secretary-Treasurer.

Vol. XI, No. 11. College Park, Maryland November, 1934.

Storage of Sweet Potatoes: The United States Department of Agriculture has just issued Leaflet No. 106, entitled, PREVENT STORAGE ROTS OF SWEET POTATOES. Control of these diseases should begin with selection and treatment of the potatoes bedded in the spring. Any root showing signs of disease should be eliminated. Those remaining should be treated with a solution of corrosive sublimate (poison) made by dissolving one ounce in eight gallons of water using earthen or wooden vessels only. Dissolve first in a small quantity of hot water, then add enough cold water to obtain the required strength. Immerse the potatoes in this solution for eight minutes. The sand or soil used in the beds should be obtained from some place where sweet potatoes have not been grown for at least five years.

After the slips are ready for transplanting be sure to set them into fields known to be free from sweet potato diseases or at least those which have not been in this crop for several years. Sanitary measures of this sort should eliminate a large part of the diseases attacking the roots.

Before the crop is stored the house should be thoroughly cleaned and disinfected. Spray the hampers, walls, ceiling, and floor with a solution of copper sulphate, one pound to ten gallons of water. Open the ventilators so that the house may dry out before storing begins.

When potatoes are stored the temperature should be held at from eighty degrees to eighty-five degrees F. with a humidity of ninety percent for a period of ten days. Gradually reduce the temperature after curing and hold as near fifty-five degrees F as possible.

This leaflet may be purchased from the Superintendent of Documents, Washington, D. C. for five cents.

"Some Recent Experiments With Vegetables" (From Mr. T. H. White's Paper at the Annual Meetings): A test of the early cabbage varieties resistant to yellows confirms the value of Marion Market, a flat head green cabbage, as being almost immune to yellows and a variety of good type. All Seasons is also yellows resistant, but is larger and later, and apparently not quite as uniformly heading as the Marion Market. Where gardeners have been having trouble from diseases in the cabbage patch, these two varieties are recommended. Jersey Queen, a cabbage of the "sharp head" or conical type, which was developed to take the place of Early Jersey Wakefield in yellows soil, does not seem to be quite as vigorous and hardy as the Wakefield.

Sweet potatoes make two kinds of roots, fibrous roots and storage roots. The storage roots are the commercial kind sold for human consumption. A good crop is secured when the storage roots are numerous and large. Some experiments indicate that the methods of planting and fertilizing have a distinct influence on the development of the type of roots. Plants set at a level where the soil was continually moist, or wet, so that the plants grew well, failed to develop any storage roots, while plants set at a higher level so that the upper roots were in dry soil, developed the large roots. Thus, it would seem that setting the plants on a ridge would be a good practice in soil likely to remain wet, or on any soil during a wet season. Commercial fertilizers, for the sweet potato crop, have been under suspicion as being the cause of poor stands, so that now many growers set the plants and apply the fertilizers later.

An experiment using one thousand pounds per acre of a 6-6-5 commercial brand, considered applying the fertilizer in three ways: (1) In the row and ridging the soil over it; (2) Drilling into the soil broadcast; and (3) Applying a week after the plants were set. Losses from the death of plants were 21 percent on the rows, which were ridged up over the fertilizer; 12 per cent where the fertilizers were drilled in, and 7 percent when fertilizers were applied after planting.

Some experiments using one of the elements as a topdressing after planting indicated that the fertilizers had some effect on the development of storage roots. If divided applications would not be too troublesome, it would perhaps be well to apply the phosphoric acid before planting and the nitrogen and potash after planting. Of the different nitrogen carriers used in the experiment, nitrate of soda seemed to have the most marked effect.

VEGETABLE GROWERS' NEWS LETTER

Issued by
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W. R. Ballard, Secretary-Treasurer.

Vol. XI. No. 12. College Park, Maryland. December, 1934

Kale: Kale belongs to the cabbage family, but does not make a head. It is quite hardy and in mild climates lives over winter. It is grown on a large scale for fall and spring markets.

It succeeds best on a well drained sandy loam soil. It is a heavy feeder and must be well fertilized. Both manures and commercial fertilizers are used, phosphoric acid being an important element needed by the plant. Where the organic content of the soil is kept up through the use of manure or green cover crops, 1000 to 1500 pounds of a 4-8-4 or a 5-8-5 is to be recommended.

For the fall crop seed is planted in July or August depending upon the locality and for the spring crop, as early as the ground can be prepared. Rows are made eighteen inches apart for hand culture and from twenty-four to thirty inches for horse tools. Plants are thinned to stand six inches in the row.

Kale is attacked by most of the insects affecting cabbage and spraying or dusting is essential to the production of quality.

Varieties of both the Scotch and Siberian forms are used.

For home use the leaves are picked from the plant and can be utilized even during the summer if only the tender leaves are picked. For market the entire plant is cut, trimmed and washed and handled in baskets or hampers.

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